

XOR using perceptron algorithm (A XOR B)

We already know how we can implement AND & OR using perceptron.

For AND, we can have  $w_1 = w_2 = 1$   
 $b = -1.5$

For OR, we can have  $w_1 = w_2 = 1$   
 $b = -0.5$

Now ~~for~~ we define NOT as well, as we could require that for XOR. We just have one input here. Therefore, just one weight  
 $w = -1$  &  $b = 0.5$

A XOR B can be defined as  $A \oplus B = (A+B) \cdot (\bar{A} + \bar{B})$

We can use this equation & the above mentioned weights to evaluate XOR.